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ABSTRACT

This study compared the sex role attitudes of 32 children (in grades K-2) from "traditional" homes (in which mothers stressed socialization toward standard cultural sex roles) with the attitudes of 34 children of the same ages from "non-traditional" homes (in which mothers stressed non-sexist socialization). Children responded to three attitude inventories concerning social and occupational roles of adults and activities appropriate for boys and girls. Data were analyzed by a 3-way analysis of variance, with sex, home environment and grade as factors. Findings indicated that boys and girls from traditional homes were significantly more inclined than those from non-traditional homes to assign children's activities on the basis of sex. Regardless of home environment, girls held more non-sexist attitudes than boys toward adult social roles. Boys from traditional homes possessed narrow views of adult role options as early as kindergarten; girls from traditional homes revealed more stereotypes in first and second grades than in kindergarten. An additional analysis was performed on a subscale of household task items from the social adult scale which were assumed to be familiar to all children. A significant difference was found between scores of children from traditional and non-traditional homes, suggesting that the influence of non-traditional role models at home could counter stereotyping influences outside the home. (CW)

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ABSTRACT

Sex Role Concepts of the Kindergarten, First and Second Grade Child As A Function of Their Home Environment

This study compared the sex role attitudes of children from "traditional" homes (stressing socialization toward standard cultural sex roles) with those of children from "non-traditional" homes (stressing a non-sexist role development). The sample consisted of 32 traditional children and 34 non-traditional children.

The children were asked to respond to three inventories concerning attitudes toward: the social role of adults, the occupational role of adults, and the social roles of children.

The data was analyzed by a three-way analysis of variance. The factors were sex, home environment and grade. The null hypotheses were tested with alpha set $p = .05$.

Findings showed that non-traditional children felt both sexes could play in multiple roles. Traditional children were more inclined to assign these tasks or behaviors on the basis of sex.

Girls were found to hold more non-sexist attitudes toward the social role of the adult, regardless of their home environment. By first grade, traditional girls were already beginning to narrow role possibilities for children and adults and by second grade they scored more traditionally than did the tradition males on all three scales. These findings should suggest to educators and parents that the encouragement and reinforcement of multiple roles for girls ought to begin no later than kindergarten.

Among the boys,narrow role options for adults were already evident at kindergarten and remained relatively unchanged over the next two years. For boys, then, teaching should begin in the early pre-school years.

Findings indicate that both sexes need more exposure to non-stereo-typical adult role models. There are crucial times in the child's development when sex-stereo-typing is most influential and which occurs at different times for each sex, and changes in curriculum and pedagogy might alter this situation.

Sexual Concepts of Kindergarten, First and Second Grade Children As a Function Of Their Home Environment

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As educators seek to answer the question of what strategies will affect non-sexist attitudes in children, this study which dealt with children of non-traditional mothers might offer some insight.

In recent years, there have been some rather dramatic role changes in a growing number of American families. These changes have been influenced in part by more women entering the job market and by the questioning and re-defining of male/female roles by the feminist movement. These changes have probably been most noticeable among educated middle-class women. The literature also supports this contention. Bronfrenbrenner, (1960), and Sears Maccoby and Levin, (1957), cite a change in child rearing practices role on the part of these women concerning their children's interests, abilities, and aspirations.

Non-traditional women have redefined the roles of family members around such areas as child care, house management, sharing of financial responsibilities, division of labor and male/female relationships. The children of these non-traditional mothers are growing up in a sub-culture whose orientation is less stereotypical than those middle-class children who have equivalent class characteristics but more traditional or stereotypical orientations.

The study I conducted compared the influence which the non-traditional and the traditional mother had on their children's sex role attitudes. Specifically, I was concerned with the children's interpretation of the social and occupational roles of adult males and females and the social roles of boys and girls. The study was conducted in a small university town in northern New England. The population was white middle class. The sample consisted of two groups of children, grades K-2, drawn from two elementary schools, 34 children of non-traditional mothers and 32 children of traditional mothers.

For the purpose of the study, the traditional and non-traditional groups were defined in the following way.

Traditional Woman: A traditional woman is one who for the most part accepts the standard cultural sex role of the woman. She sees her main role as that of wife and mother and her primary responsibility being the care of her husband, her children and her home.

Non-traditional Woman: A non-traditional woman is one who questions the traditional sex role stereotypes. She feels her life choices cannot be defined in terms of her sex. An outgrowth of her questioning is modification in her behaviors and attitudes toward the areas of child rearing, house management, economic benefits, occupational aspiration and male/female relationships.

A critical first step for the study was to develop a process by which I could identify traditional and non-traditional women. I decided to ask 10 women from the community to serve as "judges" in choosing women who, in their opinion, would most closely fit the description I was using for a traditional and a non-traditional mother. Five of these women were chosen to select traditional mothers and the remaining five non-traditional mothers. These women were chosen as judges based upon three criteria. First, in my opinion, they most closely matched the attitudes and behaviors which I defined as those of traditional and non-traditional women; second, they did not have children of the age which might include them in the study; and third, they had lived in the area for several years and were very familiar with other women in the community.

Once the non-traditional judges were selected they were each given a list of all students in kindergarten, first and second grades and asked to identify those children whose mothers, they thought, were non-traditional. The same procedure was followed by the other judges in selecting traditional mothers. In each group, if three out of the five judges chose the same mother, she was asked to participate in the study.

Further screening of the non-traditional/traditional orientation of the mother was based upon an interview concerned with the mothers' attitude toward the role of the woman socially, financially and occupationally. The interview focused on the mothers' group affiliation and her role as wife and mother. Only those mothers who were both identified by the "judges" as non-traditional and who scored non-traditionally on this interview were included in the final study. The same requirement applied to the traditional group; they had to score traditionally and be chosen as traditional by the "judges" to be included. In the final sample, there were 34 non-traditional and 32 traditional mothers who qualified. The children of these women were then interviewed to determine their sex role concepts.

The children were told that the interviewer was writing a book about what jobs children thought grown people should have, what kind of tasks adults should perform, and what kinds of tasks and play activities children could participate in. The interviewer stressed that children had many different ideas, that there were no right or wrong answers; rather the interviewer was interested in what the particular child thought.

The children were asked to respond to three inventories. The first inventory was concerned with attitudes toward the social role of adults;

the second with the occupational role of adults; and the third with the social roles of the male and female child. For all three inventories the children were shown three pictures, (1) one of a male adult, (2) one of a female adult, and (3) one of a male and female together.

For the first inventory (social role of the adult) the children were instructed that they would be told some things that adults do and they were to tell the interviewer if (a) only men should do it, (b) only women should do it, or (c) both men and women should do it. For example, "Who should wash the dishes, fix a faucet, buy theatre tickets?".

For the second inventory (occupational roles) the children were told that they were going to be shown some pictures of jobs that people held and they were to tell the interviewer who could have these jobs--(a) only men (b) only women, or (c) both men and women. Each picture showed an occupational setting without a person; the interviewer told the child what the setting was. For example: "This is a hospital. Who can be a doctor?".

For the third inventory (social role of the child) the children were introduced to activities in which children engage and were asked to respond if (a) only boys, (b) only girls, or (c) both boys and girls can do these things. Further, if the child gave a one sex response, the interviewer asked the child to confirm if he thought that children of this sex are the only ones who could do these things or was there a possibility that children of the opposite sex could also do them. For example, if a child said only boys could play with the blocks, the interviewer would ask "Can't girls ever play with the blocks?". The intent of this inventory was two-fold; first to determine the relationship between the children's self-concept of appropriate roles for themselves and their perception of sex-connected roles for

children in general and secondly, to determine the depth of their conviction about their sex-typing attitudes.

Six weeks after the data was collected from the children, sixteen children, randomly selected from the original sample, were again interviewed as a means to test the reliability of the instrument. Correlations for the scores on the test and retest for each scale and the total scale were run. The correlation coefficient for the social adult scale was .811; for the social child scale .854; for the occupational scale .866; and for the total scale .859. The correlations were all significant at the .01 level. These findings indicate that relative to each other on each test, the children scored much the same on the retest as they had on the original test. This shows that the scores were consistent over time and the scales were reliable.

The data was analyzed by a three-way analysis of variance (McCall, 1970). The factors were sex, home environment and grade. The intent of the study was to show the influence of home, sex and grade by themselves and their interaction. The null hypotheses were tested with alpha set $p = .05$.

Analysis of Data and Results

Prior to discussing the analyses for each of the three dependent variables, it is important to determine whether the dependent measures tap independent attitudes or whether they are tapping interrelated non-independent attitudes. If the dependent variables are independent, their significance can be discussed individually. However, if the variables are highly related, it is necessary to consider the three variables as tapping a single dimension. To this end, the correlations among the dependent variables were calculated

(Table 2) to find the relationship among subscale scores and between individual subscale scores and the total scale scores. All relationships were significant at the .01 level and positive. The lowest correlation coefficient was .598. The positive correlation indicates that high scores on one scale are related to high scores on the others. The large correlation coefficients show that the scales are testing related rather than independent attitudes.

TABLE 2

Correlation Coefficients

Variable Description	Social Child	Occupational	Total
Social Adult	.656	.598	.937
Social Child		.689	.828
Occupational			.815

The social adult scale reflects children's responses to the social roles that they felt were appropriate for either males, females or both sexes. An example of questions would be; "Who should: buy theatre tickets? scrub the floor? go hiking?

A response of male or female received a score of zero and the response "both" was given a score of one. Thus the higher scores represent the more nontraditional view and the lower scores the more traditional view.

Table 3 presents the mean score on the social adult scale of the male and female children in grades kindergarten, one and two from non-traditional and traditional homes.

TABLE 3

Means of Children's Test Scores
on Social Adult Scale

		Nontraditional		Traditional	
	Grade	M	N	M	N
Female	K	7.6	5	13.3	3
	1	11.9	7	8.6	5
	2	14.8	4	6.4	5
		Grand Mean	11.4	Grand Mean	9.4
	Grade	M	N	M	N
Male	K	6.8	6	3.3	6
	1	11.6	8	4.3	10
	2	9.0	4	7.7	3
		Grand Mean	9.2	Grand Mean	5.1
	Grade	M	N	M	N
Female	K	7.2	11	8.3	9
and	1	11.7	15	6.4	15
Male	2	11.9	8	7.0	8
		Grand Mean	10.3	Grand Mean	7.23
	Grade	Female		Male	
Nontradi-					
tional &	K	10.5	8	5.1	12
Tradi-	1	10.2	12	8.0	18
tional	2	10.6	9	8.3	7
		Grand Mean	10.2	Grand Mean	6.9

Table 4 presents a three way analysis of variance that was carried out on the data from the children's responses to social roles of adults, to test the hypothesis that there is no difference in the attitudes held by children from traditional and non-traditional homes toward the social role of the adult.

TABLE 4

Analysis of Variance of Children's Test Scores
on Social Adult Scale F Test Significance Levels

Source of Variance	DF	Mean Square	F Test	Significance Level
Sex	1	158.571	4.147	.047*
Home	1	131.757	3.446	.069
Grade	2	15.210	0.398	over.500
Sex x Home	1	16.004	0.419	over.500
Sex x Grade	2	15.874	.415	over.500
Home x Grade	2	62.210	1.627	.206
Sex x Home x Grade	2	83.800	2.192	.122

*Significant at the .05 level

The null hypothesis was retained. Across all grades and sexes home environment failed to reach significance at the (.05) level. However, the p value of .069 is certainly suggestive that there is more than chance operating especially in view of the comparable results of home environment with the other subtests (social child and occupational) and the strong correlations of this test with these other subtests.

Table 4 shows that children from nontraditional homes score higher (and therefore less traditional) than children from traditional homes although the difference just failed to reach significance ($p = .069$).

Sex of the child did reach significance ($p = .05$), across all grades and home environments. Females scored significantly higher than males. Regardless of the kinds of homes they came from girls held more non-stereotyped attitudes concerning the social roles of adults than did their male counterparts.

All other main effects and interactions effects were nonsignificant. In conclusion, the one which stated that; there is no difference in the attitudes held by children from traditional and nontraditional homes toward the social role of the adult, was retained.

The occupational scale elicited children's attitudes towards the occupational roles appropriate for men and women. Children were asked to respond to questions like "Who can be a doctor? lawyer? teacher?" On this scale as on previous scales the higher the score the more non-traditional the view. The mean attitudes scores for the children on the occupational scale are presented in Table 5.

TABLE 5

Means of Children's Test Scores on Occupational Scale

		Nontraditional		Traditional	
	Grade	M	N	M	N
Female	K	3.4	5	8.7	3
	1	4.9	7	4.2	5
	2	7.5	4	2.2	5
		Grand Mean	5.2	Grand Mean	5.0
	Grade	M	N	M	N
Male	K	6.0	6	3.3	6
	1	6.0	8	4.3	10
	2	7.2	4	3.7	3
		Grand Mean	6.4	Grand Mean	3.8

TABLE 5 (continued)

	Grade	M	N	M	N
Female	K	4.7	11	6.0	9
and	1	5.4	15	4.2	15
Male	2	7.4	8	2.9	8
		Grand Mean	5.7	Grand Mean	4.1

	Grade	Female		Male	
Nontradi-	K	6.0	8	4.7	12
tional &	1	4.5	12	5.2	18
Tradi	2	4.8	9	5.5	7
tional		Grand Mean	4.8	Grand Mean	5.1

An analysis of variance was run on these data to test the hypothesis that there is no difference in the attitudes held by children from non-traditional and traditional homes towards the occupational role of the adult. Table 6 presents the results.

TABLE 6

Analysis of Variance of Children's Test Scores Towards Occupational Roles of Adults F Test Significance Levels

		Occupational Scale		
Source of Variance	DF	Mean Square	F Test	Significance Level
Sex	1	.030	.004	over .500
Home	1	30.252	3.489	.068
Grade	2	1.291	.149	over .500
Sex x Home	1	21.355	2.463	.123
Sex x Grade	2	6.364	.734	.485
Home x Grade	2	40.325	4.651	.014*
Sex x Home x Grade	2	30.029	3.464	.039*

*Significant at the .05 level

The null hypothesis concerning occupational scale was retained across all grades and sexes. However, the p value of .068 is indicative as it was on the social adult scale that there is more than chance operating.

The interaction of home x grade was significant. (p. .05) The home x grade interaction suggests that children from non-traditional homes seem to become less stereotyped as they get older whereas children from traditional homes seem to become more stereotyped.

Table 5 shows the means from the traditional and non-traditional home environments broken down according to grades. It can be seen that the two groups significantly diverge with age. Older children in the non-traditional group scored higher indicating greater flexibility in their attitudes towards occupational roles for adults. The older traditional group scored lower than their younger counterparts indicating more occupational role differentiation according to the sex of the adult.

The sex x home x grade interaction was found to be significant. (p .05) Table 5 shows that non-traditional female scores are higher at second grade than they are at kindergarten and first grade. Older non-traditional girls give more non-stereotypical responses than do their younger peers. The lower scores of kindergarteners and first graders indicate more occupational role differentiation for adults according to sex. However, the following trend appears: as the non-traditional female child gets older, she sees more occupational roles being appropriate for both male and female. Traditional girls follow the pattern of the non-traditional girls in reverse. Non-traditional kindergarteners scores start high, dropping at first grade and again at second grade. The lower scores of older traditional girls suggest that with age the traditional girl become more sex stereotyped and definite in occupational role differentiation according

to sex.

Table 5 also shows that non-traditional males score higher and therefore more non-traditional across the grades than did traditional males. For both the non-traditional and traditional males their scores remain relatively unchanged from kindergarten to second grade. The non-traditional males scores remained consistently high over the three years as the traditional males scores remained consistently low over the three years.

The social child scale reflects children's attitudes toward the kinds of tasks and play appropriate for female and male children. The children were asked, who can play with the blocks, a nurse's kit, etc. The scoring for this scale was the same as for the social adult scale, the higher score representing a non-traditional view and the lower scores a traditional view. The mean attitudes scores for the children on the social child scale are presented in Table 7.

TABLE 7

Means of Children's Test Scores
on Social Child Scale

		Non-Traditional		Traditional	
	Grade	M	N	M	N
Female	K	4.4	5	5.7	3
	1	4.6	7	3.0	5
	2	6.0	4	2.6	5
		Grand Mean	5.0	Grand Mean	3.8
	Grade	M	N	M	N
Male	K	5.5	6	2.3	6
	1	5.0	8	2.8	10
	2	6.0	4	3.3	3
		Grand Mean	5.5	Grand Mean	2.8

TABLE 7 (continued)

	Grade	M	N	M	N
Female	K	5.0	11	4.0	9
and	1	4.8	15	2.9	15
Male	2	6.0	8	3.0	8
		Grand Mean	5.1	Grand Mean	3.0

	Grade	Female		Male	
Non-tradi-	K	5.0	8	3.9	12
tional &	1	3.8	12	3.9	18
Traditional	2	4.3	9	4.7	7
		Grand Mean	4.2	Grand Mean	4.0

An analysis of variance was carried out on the data to test the hypothesis that there is no difference in the attitude held by children from non-traditional and traditional homes towards the social role of the child. The results of the analysis of variance calculations are presented in Table 8.

TABLE 8

Analysis of Variance of Children's Test Scores on Social Child Scale F Tests Levels

Source of Variantion	DF	Mean Square	F Test	Significance Level
Sex	1	.655	.140	.500
Home	1	55.831	11.969	.002*
Grade	2	2.625	.563	over .500
Sex x Home	1	7.392	1.628	.208
Sex x Grade	2	3.063	.657	over .500
Home x Grade	2	5.294	1.135	.329
Sex x Home x Grade	2	8.717	1.869	.165

** Significant at the .001 level
* Significant at the .05 level
Significant at the .10 level

It is apparent from Table 8 that the hypothesis was rejected. On the social child scale home environment was significant at the .002 level. For all grade levels and for both sexes children from non-traditional homes scored significantly higher than did children from traditional homes. The home factor had a much larger effect on this scale than it did on the social adult scale. However, the effect of the child's sex on this scale was much smaller than it was on the social adult scale where the effect was found to be significant. All other main effects and interaction effects were non-significant. Hence, Ho 3 which stated that; there is no difference in the attitudes held by children from traditional and non-traditional homes toward the social role of the child, was rejected.

Total Scale

The mean attitude scores for the children on the subscales (social adult, social child, occupational) and the total scale are presented in Table 9.

TABLE 9

Means of Children's Test Scores for Total Scale

			N	Total Test
Female	Nontraditional	K	5	15.4
		1	7	21.0
		2	4	28.2
			Grand Mean	21.6
	Traditional	K	3	27.7
		1	5	15.8
		2	5	11.2
			Grand Mean	18.2

TABLE 9 (continued)

			N		Total Test
Male	Non-traditional	K	6		18.3
		1	8		22.6
		2	4		22.2
				Grand Mean	21.1
	Traditional	K	6		9.0
		1	10		11.4
		2	3		14.7
				Grand Mean	11.7
Female and Male	Non-traditional	K	11		16.9
		1	15		22.0
		2	8		25.2
				Grand Mean	21.1
Non-traditional and Traditional	Female	K	8		21.5
		1	12		18.5
		2	9		19.7
				Grand Mean	19.2
	Male	K	12		13.7
		1	18		17.0
		2	7		18.5
				Grand Mean	16.0

TOTAL SAMPLE

An analysis of variance was performed on the data from the total scale. This analysis is presented in Table 10.

TABLE 10

Analysis of Variance of Children's Test Scores on Total Scale F Test Significance Level

		Total Scale		
Source of Variation	DF	Mean Square	F Test	Significance Level
Sex	1	183.313	1.906	.174
Home	1	597.840	6.184	.017*
Grade	2	12.912	0.134	over .500

TABLE 10 (continued)

Source of Variation	DF	Mean Square	F Test	Significance Level
Sex x Home	1	129.436	1.339	.253
Sex x Grade	2	67.896	.702	over .500
Home x Grade	2	244.864	2.533	.089
Sex x Home x Grade		293.356	3.034	.057

* Significant at the .05 level
Significant at the .10 level

The data from Table 10 suggests that home variable in this study was significant. (p .02) For all grades and for both sexes, children from non-traditional homes score significantly higher than children from traditional homes. The higher scores of children from non-traditional homes indicate less role differentiation according to sex. These children were more flexible in their attitudes in the performing of social and occupational roles by both the sexes. Children from traditional homes reflected the more traditional role stereotypes. Roles were defined according to sex. There was far less cross sexual role assignment by children in the traditional group.

Data from the home x sex x grade interaction on the total scale just failed to reach significance. However, the p value of .057 is indicative that there is more than chance operating.

Non-traditional girls in second grade scored higher than their younger non-traditional peers in kindergarten and first grade. Among traditional girls the scores steadily decreased from kindergarten to second grade. The mean scale of 27.7 for the traditional kindergarten females is somewhat misleading as it is most influenced by a high mean score 13.3 on the social adult scale. (Table 9) The score was arrived at by a small sample of three

traditional kindergarten girls whose scores were 26, 9 and 5. The high scoring of 26 by one of the girls skewed the data and makes a generalization from that size sample inappropriate.

Among the boys the mean scores increased slightly at each grade level. The influence of home environment was evident in the non-traditional boys' consistently higher scores.

The interaction of home x grade also just failed to reach significance. (p .09)

The scores for non-traditional children become consecutively higher from kindergarten to first grade and to second grade. In contrast the scores for traditional children become consecutively lower kindergarten through second grade. Each group, as its members grew older, apparently responded in a way more consistent with the attitudes of the role models in their home environments.

The findings of the study showed clearly that children from non-traditional homes hold non-traditional attitudes toward sex roles. The home variable was the most clearly distinguishable on the social child scale. Children from non-traditional homes held significantly different attitudes (.002) about activities appropriate for both boys and girls than did those children from traditional homes. Non-traditional children felt both sexes could play with blocks, doll houses, nurse's kits, be neat and clean or rough and strong. Traditional children were more inclined to assign these tasks or behaviors on the basis of sex: boys are rough, girls are clean; boys play with blocks and girls with the nurse's kit.

When children gave a sexist response to a question on this scale, they were then asked if a child of the opposite sex could also do the task; non-traditional children were more likely to indicate, upon reflection, that they probably could, whereas traditional children held more consistently to their original response. The researcher interpreted the traditional children's responses as being indicative of their stronger commitment to role assignments for themselves and other children according to sex.

On the social adult scale and occupational scale home environment only approached significance, social adult (.069) and occupational (.068). A possible explanation for the larger effect of the home found on the social child scale, is that in this instance the children were being asked to respond to questions that related directly to their own experiences with roles and tasks. In contrast, the other two scales, social adult and occupational, required the children to answer questions about adult behavior with which they might not have had direct experience or knowledge. For instance, a child's own parents might never have purchased theatre tickets or cut down a tree. Similarly, children might never have seen or known about the work of a secretary, dance teacher or lawyer. In fact, during several of the interviews children asked me to clarify for them what a secretary and a judge did.

Because of the particular concerns this raised about the effectiveness of all of the questions in the scale, I decided to run an additional analysis on specific items. Nine items from the social adult scale were compiled into a"household tasks" subscale. These items were selected because they related directly to tasks with which children could be expected to have had almost daily experience in their home.

An analysis of variance was computed and a significant difference (.021) was found between traditional and non-traditional children. The non-traditional children did see adults of both sexes performing household tasks whereas traditional children saw the task assignments according to the sex of the adult. The finding suggests that the influence of non-traditional mothers is able to counter the barrage of stereotypical behavior the child is exposed to in the media, in the community and at school.

The greater significance of the home environment variable on the household scale and the social child scale lends support to the notion that young children are more decisive in their responses when they are asked questions which draw upon their personal concrete experiences. This notion is consistent with Piaget's concept of a period of representative intelligence (including pre- and concrete operational subperiods). The child's ideas at this age (2-11) and level of conceptualization are based upon his observations and experiences. It is not until the child is at a later stage of cognitive thought that he is able to generalize or break away from concrete experiences as a way of "knowing".

The child's sex itself was influential in determining how the child defined acceptable sex roles. On the social adult scale, girls across all grades from all home environments scored significantly (.047) higher than their male counterparts. This finding corroborates the research studies of others (Brown, 1956; Emmerich, 1964) that young girls are more fluid in their role assignment and do less sex-typing than boys.

On the occupational scale grade interacted with home to establish divergent trends for non-traditional and traditional girls as they defined appropriate occupational roles for adults. The pattern of responses for the

non-traditional girls, as they become older, indicated that they saw more occupational role possibilities for both men and women. It appears, from these trends, that both groups as they age, replicate the attitudes of their mothers; traditional girls become more sexist and non-traditional girls more non-sexist.

This pattern is consistent with other studies (Hartley, 1959; Brown, 1956) that suggest that girls, when they come to school, have less fixed attitudes about female sex roles. The school years seem to be the time when these attitudes begin to take shape and they continue to develop until puberty. Therefore, it is not surprising that this study found a greater change in sex role attitudes for the female than for the male child.

The pattern for the boys from both home environments on the occupational scale was more consistent than for the girls. Their scores increased only slightly from kindergarten through first to second grade. However, home environment did make a difference in the scoring. Non-traditional boys scored consistently higher than did traditional boys. The higher the score the more non-traditional the attitude. This greater consistency of the boys' responses across the grades is corroborated by other research. (Brown, 1956; Hartley, 1959). These studies suggest that boys' sex roles attitudes are solidified earlier because they receive specific and direct instruction about what is appropriate for them to think and do. Boys are expected to exhibit "male" behavior in the pre-school years and are punished for non-masculine behavior. If this, then, is the case, their responses on the occupational role scale would be consistent over the grades, for by the time they enter school they have had ample time to develop "male" behaviors, interests and attitudes.

On the social adult scale girls across all grades and from all home environments scored significantly higher than their male counterparts. However, this finding must be taken with caution. By first grade, traditional girls were already beginning to narrow role possibilities for adults and by second grade they scored more traditionally than did their traditional male counterparts. This finding should suggest to educators and parents that the encouragement and reinforcement of multiple roles for girls ought to begin no later than kindergarten to insure that the range of options remains as fluid and diverse as possible.

Among the traditional boys in this study, narrow role options for adults were already evident at kindergarten and for boys, then, teaching should begin in the earlier-pre-school years. Pre-school educators need to acquaint themselves with the research on sex role development (Fauls, 1956; Hartup and Zook, 1960) which cites the pressures on the very young boy to act and think like a "male". A rigid attitude is already established by age five and interventions which could reverse this trend must be made much earlier.

What is evidently needed by both sexes is more exposure to non-stereotypical adult role models in the school curriculum. Adults exhibiting diverse role models can and do provide children with behaviors, aspirations and social roles. For example, Kagan (1969) thinks the reason the boys aspire toward careers in the arts and sciences is that they have ample models of men in these positions. He feels the child is more likely to imitate a model if he perceives the person to have similar attributes--in this case, sex.

Girls obviously have not had an abundance of similar appropriate models to imitate. We all know that in the past talented women have not been found in professional positions. Girls in particular, but also boys, need exposure to women who are independent, creative, and proactive in order to dispel the stereotypes of what is acceptable female behavior. In addition, they need exposure to women who have non-traditional careers in order to expand their understanding of what women can accomplish.

If we expect children to see women as successful and competent, we must provide them multiple models of actual persons. Boys should also be exposed to hearing teachers encourage girls to aspire to prestigious careers and to modeling the behavior of these successful women.

As important as such exceptional models would appear to be, the present results suggest the greatest influences on children's self-esteem, need for achievement and career aspirations are the day to day models they encounter.

Guttentag's (1975) study collaborates this notion. In piloting a six week non-sexist curriculum with over 1,000 children in three age groups: 5, 10 and 14, she found that only when teachers combined enthusiasm with extensive use of non-sexist materials were they successful in changing the childrens' attitudes. Exposure to non-sexist lessons alone were not enough to change traditional ideas and behavior.

Teachers also need to become aware of the kinds of responses they make toward children which discriminate on the basis of sex. After observing 15 pre-school classes, Serbin and O'Leary (1975) found that teachers attended more to a boy's behavior regardless of it being good or disruptive than they did to a girls. Teachers responded three times as often to acting out boys

than to acting out girls, and reprimanded the boys loudly and in public. In contrast when the teachers did respond to girls it was a brief, quiet reprimand which others couldn't hear. The kinds of behaviors that girls used and were most successful in gaining the teacher's attention were withdrawal and dependency. Teachers daily were rewarding the behavior of males to be aggressive and females to be passive and dependent--a behavior pattern which for girls is counter-productive to developing cognitive and problem-solving skills.

Sexism in education is a contradiction of the values inherent in humanistic education. Such education attempts to educate children according to their potential, resources and interests. In reality, humanism does not exist if the educator establishes learning goals and activities for children according to sex. Failure to develop female potential--a condition which, according to this study, starts early in the young child's schooling--is surely a great loss of human resources. At the same time, the narrowly defining acceptable behavior for boys also limits their options as adults. That changes in pedagogy and the curriculum might alter this situation are strongly suggested by this study.

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